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on March 10, 2004

Glenn P. Ladwig, Patent Attorney

INFORMATION DISCLOSURE

**STATEMENT** 

**Examining Group 1651** 

Patent Application

Docket No. USF-T173CXC1

Serial No. 09/914,508

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Examiner

Vera Afremova

Art Unit

1651

**Applicants** 

Beerelli Seshi

Serial No.

09/914,508

Filed

November 7, 2001

Conf. No.

8090

For

Human Mesenchymal Progenitor Cell

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

# <u>INFORMATION DISCLOSURE STATEMENT</u> <u>UNDER 37 CFR §§1.97 AND 1.98</u>

Sir:

In accordance with 37 CFR §1.56, the references listed on the attached form PTO/SB/08 are being brought to the attention of the Examiner for consideration in connection with the examination of the above-identified patent application. Copies of the cited documents are enclosed.

The applicant respectfully asserts that the substantive provisions of 37 CFR §§1.97 and 1.98 are met by the foregoing statements.

Respectfully submitted,

Glenn P. Ladwig Patent Attorney

Registration No. 46,853

Phone No.:

352-375-8100

Fax No.:

352-372-5800

Address:

2421 N.W. 41st Street, Suite A-1

Gainesville, FL 32606-6669

GPL/mv

Attachments: Form PTO/SB/08 (5 pages); copies of references cited therein.



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INCODMA	TION DICC		_	Application Number	09/914,508	
	TION DISC			Filing Date	November 7, 2001	
STATEMENT BY APPLICANT				First Named Inventor	Beerelli Seshi	
(us	se as many sheets	s as necessa	ary)	Art Unit	1651	
				Examiner Name	Vera Afremova	
Sheet	Sheet 1 of 5			Attorney Docket Number	USF-T173CXC1	

		·	U.S. PATENT DO	OCUMENTS	<del></del>
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number - Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	U1	US-5,521,067	05-28-1996	Seshi	All
	U2	US-			
	U3	US-			
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	U5	US-			
	U6	US-			
	U7	US-			
	U8	US-	,		
	U9	US-			

	FOREIGN PATENT DOCUMENTS					
		Foreign Patent Document	Publication Date	Name of Patentee or	Pages, Columns, Lines,	
Examiner Initials*	Cite No. 1	Country Code 3 - Number 4 - Kind Code <sup>6</sup> (if known)	MM-DD-YYYY	Applicant of Cited Document	Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
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Application Number	09/914,508					
Filing Date	November 7, 2001					
First Named Inventor	Beerelli Seshi					
Group Art Unit	1651					
Examiner Name	Vera Afremova					
Attorney Docket Number	USF-T173CXC1					

	NON PATENT LITERATURE DOCUMENTS				
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	R1	CHAKRABARTI, O. and S. KRISHNA "Molecular interactions of 'high risk' human papillomaviruses E6 and E7 oncoproteins: implications for tumour progression" <i>J. Biosci.</i> , 2003, 28(3):337-348.			
	R2	CHARBORD, P. et al. "Stromal cells from human long-term marrow cultures, but not cultured marrow fibroblasts, phagocytose horse serum constituents: studies with a monoclonal antibody that reacts with a species-specific epitope common to multiple horse serum proteins" <i>Exp. Hematol.</i> , 1987, 15:72-77.			
	R3	CONGET, P.A. and J.J. MINGUELL "Phenotypical and functional properties of human bone marrow mesenchymal progenitor cells" <i>J. Cell. Physiol.</i> , October 1999, 181:67-73.			
	R4	DENNIS, J.E. et al. "A quadripotential mesenchymal progenitor cell isolated from the marrow of an adult mouse" J. Bone and Mineral Res., 1999, 14(5):700-709.			
	R5	DEUNSING, S. and K. MUNGER "The human papillomavirus type 16 E6 and E7 oncoproteins independently induce numerical and structural chromosome instability" <i>Cancer Res.</i> , 2002, 62:7075-7082.			
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	R11	GERSON, S.L. "Mesenchymal stem cells: No longer second class marrow citizens" <i>Nature Med.</i> , 1999, 5(3):262-264.			
	R12	GRAF, L. et al. "Gene expression profiling of the functionally distinct human bone marrow stromal cell lines HS-5 and HS-27a" Blood, 2002, 100(4):1509-1511.			
	R13	GRAVITT, P. "HPV: The ultimate cancer initiator?" HPV Today, No. 3, September 2003, pp. 1-4.			

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09/914,508	
November 7, 2001	
Beerelli Seshi	
1651	
Vera Afremova	_
USF-T173CXC1	
	09/914,508 November 7, 2001 Beerelli Seshi 1651 Vera Afremova

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article, (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
	R14 <sup>°</sup>	HAYNESWORTH, S.E. et al. "Characterization of cells with osteogenic potential from human marrow" Bone, 1992, 13:81-88.	
	R15	HAYNESWORTH, S.E. et al. "Cell surface antigens on human marrow-derived mesenchymal cells are detected by monoclonal antibodies" <i>Bone</i> , 1992, 13:69-80.	e e
	R16	HENDERSON, A.J. et al. "Functional characterization of two stromal cell lines that support B lymphopoiesis" <i>J. Immunology</i> , 1990, 145:423-428.	
	R17	HICOK, K.C. et al. "Development and characterization of conditionally immortalized osteoblast precursor cell lines from human bone marrow stroma" <i>J. Bone and Mineral Res.</i> , 1998, 13(2):205-217.	
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	R20	KEATING, A. et al. "Donor origin of the in vitro haematopoietic microenvironment after marrow transplantation in man" Nature, 1982, 298:280-283.	
	R21	KELLY, K.A. and J.M. GIMBLE "1,25-Dihydroxy vitamin D <sub>3</sub> inhibits adipocyte differentiation and gene expression in murine bone marrow stromal cell clones and primary cultures" <i>Endocrinology</i> , 1998, 139:2622-2628.	
	R22	KOÇ, O.N. et al. "Bone marrow-derived mesenchymal stem cells remain host-derived despite successful hematopoietic engraftment after allogeneic transplantation in patients with lysosomal and peroxisomal storage diseases" Exp. Hematology, 1999, 27:1675-1681.	
	R23	KOPEN, G.C. et al. "Marrow stromal cells migrate throughout forebrain and cerebellum, and they differentiate into astrocytes after injection into neonatal mouse brains" <i>Proc. Natl. Acad. Sci. USA</i> , 1999, 96:10711-10716.	
	R24	LIESVELD, J.L. et al. "Characterization of human marrow stromal cells: Role in progenitor cell binding and granulopoiesis" <i>Blood</i> , 1989, 73(7):1794-1800.	
	R25	MOORE, M.A.S. et al. "Prolonged hematopoiesis in a primate bone marrow culture system: Characteristics of stem cell production and the hematopoietic microenvironment" <i>Blood</i> , 1979, 54(4):775-793.	
	R26	PARK, S.R. et al. "Interconversion potential of cloned human marrow adipocytes in vitro" Bone, 1999, 24(6):549-554.	

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Examiner Name		Vera Afremova	
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	R27	PENN, P.E. et al. "Dissecting the hematopoietic microenvironment. IX. Further characterization of murine bone marrow stromal cells" <i>Blood</i> , 1993, 81(5):1205-1213.		
	R28	PESSINA, A. et al. "Expression of B cell markers on SR-4987 cells derived from murine bone marrow stroma" Exp. Hematology, 1997, 25:536-541.		
	R29	PROCKOP, D.J. "Marrow stromal cells as stem cells for nonhematopoietic tissues" Science, 1997, 276:71-74.		
	R30	ROECKLEIN, B.A. and B. TOROK-STORB "Functionally distinct human marrow stromal cell lines immortalized by transduction with the human papilloma virus E6/E7 genes" <i>Blood</i> , 1995, 85(4):997-1005.		
	R31	SESHI, B. et al. "Multilineage gene expression in human bone marrow stromal cells as evidenced by single-cell microarray analysis" <i>Blood Cells, Molecules, and Diseases</i> , 2003, 31:268-285.		
1 2 1	R32	SILER, U. et al. "Laminin y2 chain as a stromal cell marker of the human bone marrow microenvironment" Brit. J. Haematology, 2002, 119:212-220.		
	R33	SIMMONS, P.J. et al. "Host origin of marrow stromal cells following allogeneic bone marrow transplantation" Nature, 1987, 328:429-432.		
	R34	SINGER, J.W. et al. "Evidence for a stem cell common to hematopoiesis and its <i>in vitro</i> microenvironment: Studies of patients with clonal hematopoietic neoplasia" <i>Leukemia Res.</i> , 1985, 8(4):535-545.		
	R35	STEDMAN, T.L., Stedman's Medical Dictionary, 5 <sup>th</sup> Edition, 1984, pp. 931-932.		
	R36	STOPPLER, H. et al. "The human papillomavirus type 16 E6 and E7 oncoproteins dissociate cellular telomerase activity from the maintenance of telomere length" J. Biol. Chem., 1997, 272(20):13332-13337.		
	R37	TAICHMAN, R.S. et al. "Human osteoblasts support human hematopoietic progenitor cells in in vitro bone marrow cultures" <i>Blood</i> , 1996, 87(2):518-524.		
	R38	TOROK-STORB, B., ATCC Catalog, ATCC Number CRL-2496.		
	R39	TOROK-STORB, B. et al. "Dissecting the marrow microenvironment" Ann. NY Acad. Sci., 1999, 872:164-170.	:	

Date Examiner Considered Signature

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	R40	TAICHMAN, R.S. and S.G. EMERSON "Human osteoblasts support hematopoiesis through the production of granulocyte colony-stimulating factor" <i>J. Exp. Med.</i> , 1994, 179:1677-1682.	
	R41	TERADA, N. et al. "Bone marrow cells adopt the phenotype of other cells by spontaneous cell fusion" Nature, 2002, 416:542-545.	
	R42	THOMAS, T. et al. "Leptin acts on human marrow stromal cells to enhance differentiation to osteoblasts and to inhibit differentiation to adipocytes" <i>Endocrinology</i> , 1999, 140:1630-1638.	
-100	R43	TREMAIN, N. et al. "MicroSAGE analysis of 2,353 expressed genes in a single cell-derived colony of undifferentiated human mesenchymal stem cells reveals mRNAs of multiple cell lineages" Stem Cells, 2001, 19:408-418.	
	R44	WINEMAN, J. et al. "Functional heterogeneity of the hematopoietic microenvironment: Rare stromal elements maintain long-term repopulating stem cells" <i>Blood</i> , 1996, 87(10):4082-4090.	
	R45	WOODBURY, D. et al. "Adult bone marrow stromal stem cells express germline, ectodermal, endodermal, and mesodermal genes prior to neurogenesis" J. Neuroscience Res., 2002, 96:908-917.	
	R46	YAMAZAKI, K. et al. "A comparative morphometric study on the ultrastructure of adherent cells in long-term bone marrow culture from normal and congenitally anemic mice" Blood Cells, 1989, 15:343-364.	
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	R48		
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	R50		
	R51	*	
	R52		

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